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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/633,588	08/05/2003	Naoki Nishiyama	50395-219	4807
20277	7590	11/20/2006	EXAMINER	
MCDERMOTT WILL & EMERY LLP 600 13TH STREET, N.W. WASHINGTON, DC 20005-3096			LEE, JOHN R	
			ART UNIT	PAPER NUMBER
			2878	

DATE MAILED: 11/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/633,588	Applicant(s) NISHIYAMA, NAOKI	
	Examiner John R. Lee	Art Unit 2878	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-14 is/are allowed.
- 6) ☐ Claim(s) 1-3, 6 and 7 is/are rejected.
- 7) ☒ Claim(s) 4-5 and 8 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>12/05/2003</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Objections

Claim 5 is objected to because of the following informalities: Claim 5 should depend from claim 4, not itself. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and 6-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Nishiyama et al. (US 6,188,059 B1).

Nishiyama et al. disclose an optical receiver circuit 10 (see fig. 1) comprising an avalanche photodiode 1, a voltage source, and a temperature sensor (40). The voltage is controlled by controller 40 (see fig. 2) to maintain the multiplication factor (col. 3, lines 1-11). Controller 40 comprises the sensor, reference voltage generator, voltage divider (comprising variable resistor 40TR4). With this, the multiplication factor of the photodiode is kept constant by adjusting the bias voltage to the avalanche photodiode based on the temperature monitored by circuit 40.

Allowable Subject Matter

Claims 4-5 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 9-14 are allowed.

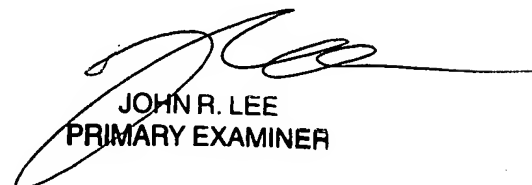
The following is a statement of reasons for the indication of allowable subject matter: Claims 4 and 8 would be allowed because the prior art fails to teach including a register and retrieving from the register as recited in claims 4 and 8. Claim 5 would be allowed if amended to correct the dependency to claim 4.

Claims 9 and 12 are allowable because the prior art fails to teach methods of manufacturing an optical receiver including the steps of measuring and calculating reference voltages or resistance values as recited in claims 9 and 12. Claims 10-11 and 13-14 are allowable by virtue of their dependency.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references cited on the PTO-892 disclose biasing an avalanche photodiode and compensating for temperature changes of the avalanche photodiode.

Any inquiry concerning this communication should be directed to John R. Lee at telephone number (571) 272-2477.


JOHN R. LEE
PRIMARY EXAMINER